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Original Lectures.

THE LOGICAL BIAS IN MEDICINE.

AN ADDRESS BY R. LUDLAM, M. D., PROFESSOR OF THE SURGICAL DISEASES OF WOMEN IN THE HAHNEMANN MEDICAL COLLEGE AND HOSPITAL OF CHICAGO.*

Insanity has been defined as "correct reasoning from false premises." This is a test of lunacy that would class our medical libraries with those of certain philosophers, and literally alienate us from our best authorities; for the logic of medicine has abounded in the kind of reason that leads men astray, and chiefly because of premises that were wrong, or only half right. The failure to exchange theoretical data for demonstrable facts has often placed our writers and teachers in a false light. With the propensity for devising new methods of cure nature has made ample provision for keeping up the supply of discoverers. The ease with which medical doctrines are formulated, and with which arguments that are empty of reason are advanced in their support, is abundantly illustrated in the pages of our literature. Some of our bewildering traditions are ancient, others are modern, all are liable to change as time passes. For, if having a revealed and a revered authority, the theologians fail to agree, and

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so become entangled in a criticism that is "high" or low, according to the mental altitude and aptitude of the contestants, what can be expected of the poor doctors who have only a man-made chart and compass for their professional guidance in the voyage of life?

The history of medicine shows that there has been a perpetual conflict between the claims of authority, observation and reason. Some would depend upon authority, for they like a doctrine that is old and tough; others upon empiricism, without law or logic; and yet others upon argument, whether it is faulty through resting on a bad foundation, or mixed with the affairs of sentiment and the imagination. And strangely enough, Hippocrates, the so-called father of medicine, as well as those of his followers who also merit the title of B. C., put the greatest stress upon the writings and records of antiquity. Before anybody else beside himself knew or had learned anything of importance he insisted that the old wine, little as there was of it, was always the best. But he had the good sense also to insist upon the claims of careful observation and of the use of reason in solving the problems of disease and its cure. In other words, he had a balance of mind that placed the proper estimate upon each of these factors in a sound medical education. Hence his famous aphorisms and his tripod of tradition, experiment and reason as its natural and necessary support. We may imitate his methods, although we have outgrown his conclusions.

If the profession had always availed itself of his teaching and example, its accumulated experience as detailed in our literature, its ripened observation and its reasonable deductions therefrom would have constituted such a body of information as under the present conditions we do not and cannot possess. The incongruities of Plato, Aristotle, Chrysippus and others who, in the capacity of medical philosophers, placed reason above clinical history and experience were inseparable from their epoch, just as ours are from the present day. They had the same disregard of common facts that some of us still have for the bits of bed-

side history that are so easily overlooked and undervalued. Each argued with great force and good reason that his own proper view, and that of his school, was the correct one. That those views were held to be rational and strictly logical did not, however, prevent them from becoming confused and contestable. For the earnest physician must be a student of facts as well as a lover of reason and of antiquity.

There are compensations in modern science and experimental medicine that reconcile the mind to the inevitable and bring their quota of blessings to the sick and the afflicted. Through investigations in advanced chemistry, bacteriology and pathology the practical evolution of the science and art of medicine has progressed until we are now in a position to weigh and to decide upon the relative and the united value of these three essentials. And it is our own fault if we fail to improve these extraordinary advantages.

While the medical world was young its best writers and teachers discussed the various questions of priority, philosophy and practice either in an autocratic or a vexed mood that was pretty sure to be partisan, one-sided and unsatisfying. Something of that same narrowness has come down to our own time. It is shown in the belief and behavior of the doctors who, at this end of a century which has been so remarkable for progress in the arts and sciences, still cling to the old ways, and who are immovably set against the inductive method of investigation. They insist that a logical theory should always bring logical consequences, of a clinical as well as of a mathematical sort. Given a proposition of experimental science as applied to medicine, and, without the least practical knowledge of the facts that support it, they can tell you through an appeal to the "inner consciousness" whether or not it is worthy of acceptance. The ready-made opinion is compounded of an excess of confidence in somebody who has already declared himself, a firm adherence to tenets that have been adopted as final, and

a settled prejudice against everything new. This is the way the merits of homœopathy have been decided by our friends of the ancient persuasion; and this is the way that certain members of our own household reject the newer methods of theory and practice that are offered them. I submit that in both cases the position taken is narrow and untenable. The argument may be all right, but the premises are wrong and the conclusions are awry, crazy, ridiculous. We all need to put up the morning petition of the pedagogue who prayed that during the day his logical faculty might discharge its function morally, and that his moral faculty might discharge its function logically.

The perversity of poor human nature often places the rational faculty before that of observation, which is well enough for poetry, perhaps, but is hardly suited to our prosaic professional life. Men think they think before the mental hopper has received what must be ground into food for thought. Epidemics of unreason begin in this way. The argument was decidedly against Harvey when he announced the discovery of the circulation of the blood; but his premises were founded on anatomical and physiological facts. It required seven volumes of notes and observations on the Schneiderian membrane to put the doctors on the right scent of olfaction and the source of the nasal mucus; but the facts were there, and consequently the old notions were upset and abandoned. Although the eye had been in use ever since man infested the garden of Eden, it was left for Kepler to show how the crystalline lens refracts the light, the retina takes an image and the ciliary processes adapt the visual focus. Scheiner, the Jesuit, calculated the cone of the luminous rays, and Descartes compared the eye to a dark chamber; but until the facts had been demonstrated the inferences were only approximative, and even the oculists were mentally befogged.

It has been well said that there are errors of observation and those of non-observation. Unless they are care-

fully noted, and carefully sifted and tested, facts are as deceptive as figures, or as the proofs that are furnished by the reason or the fancy. Whoever is ignorant of the physiology of health and of disease is manifestly incompetent to judge the facts that lie within the range of medical knowledge and experience. And if he cannot weigh and properly estimate such of them as are already established, it is neither safe nor worth while to consult him about those which are new. If he happened to stumble upon something that was original he would not know it, or he would be certain to exaggerate its importance. Our traditions abound in examples of the mischief that has resulted from depending upon facts that were as spurious as those developed by the blue-glass craze, or the tomfoolery of the old mesmeric business.

The men who gather the facts that are worth having and keeping as the corner stones of faith and practice are not those who are apt to mistake change for progress, and who are "everything by starts and nothing long." They are endowed with character and stability. Their experimental knowledge is the fruit of a steady, earnest purpose. They have a special genius for application and observation. Their faculties are trained to weigh evidence, and are not fitful and capricious. They deal with facts in a scientific and not in an emotional spirit. They are practically familiar with the rules of ordinary scientific induction. They observe, compare, reflect and then record their conclusions with judgment and deliberation. But, as the inventor is not always his own best business agent, so they do not always give the best explanation, or point out the best way of utilizing their discoveries. Sometimes they are more practical than logical. Nor can they always see the end from the beginning. The Egyptians, the Greeks and the Romans carried the art of engraving on stone to a high degree of perfection, but the idea of printing, or of taking impressions from those engravings never occurred to them. That was a belated afterthought which in the

nature of things could not have preceded the stone-cutting experiment.

The ancient conflict between the traditional, the empirical and the rational in medicine still goes on. The clever idiots who belong to antiquity, and who should be quoted in the past tense, like the followers of Bellamy always have their faces turned backward. Those who exalt experience above reason, and whose theories are wild because their facts have not been verified, proclaim their success "until affirmance breeds a doubt;" while those who insist that the whole process is or should be a rational one, are perhaps the most unreasonable of all. The real difficulty is one of proportion and adjustment in which the science of the laws of thought is not properly applied to practice.

Concerning the musty records in medicine we may recall the remark of the English statesman who declared that, although there is no necessity for a gentleman to know Latin, he ought at least to have forgotten it. There is a lot of classical rubbish and family bric-a-brac in our libraries and in our body of doctrine and discipline that never was and never will be of service at the bedside. Who that knows pneumonia as an infectious disease would consent to treat it in the old, old way by a system of depletion that attacks and undermines the vital resistance? And since the crude and almost incredible idea of phlogiston is exploded, what do we want of such antiphlogistics as the lancet, leeches, setons, moxa, blisters, starvation and other barbarities?

The old Naturalists were first speculators and then dogmatists. The old Empirics (a degenerate term in our day) relied exclusively upon experience. The Methodists, who always classified their cases, had a set method of practice, and were real routinists. These three sects stood for and ruled the medical church militant; but it was a case of parochial politics without any pulpit hospitality. The literary, the scientific and the clinical instincts were always by the ears, and naturally there was neither peace nor pro-

gress. The champion of either cause might plead or protest, the result would be the same. The ascendancy of the idea allowed them to do whatever they pleased in a sectarian way ; and they had not the slightest conception of that unity in diversion which is the perfection of art.

It has always been a mystery—and all mystery is defect—that physicians who boast of their experience, and who assume a rational position in therapeutics should consent and continue to treat all sorts and conditions of disease by routine methods without having first studied those diseases separately and unmixed with the effect of drugs. For, since the days of Dietl, Skoda and the senior Flint, where shall we find the doctor who has watched the course of rheumatism, of dysentery, of typhoid fever, or of any other disease with a jealous eye toward all interruptions or mischievous influences from start to finish? How many of us are thoroughly familiar from personal observation with the natural history of peritonitis, or even of the grippe, when they have not been botched with some kind of treatment, regular, irregular, defective, or domestic? And if we have not tracked these footsteps of disease for ourselves, were not our teachers hampered in a similar way?

It was all very well for our gifted friend, Dr. Wilkinson, to deny that there is such a thing as the natural history of disease. The old Fellows fought and rejected the *vis medicatrix naturæ* in the same way and with the same illogical reasoning. "Father," said a school boy, "what is dogmatism?" "Dogmatism, my son, is another word for dog in the manger. A man dogmatizes when he really knows very little about a subject but insists that everybody else shall believe and act as he does." Now dogmatism is the bane of medicine, as it is of theology, and even of finance in our day. It has aforetime subsidized science and largely ruled the universe of mind in professional circles everywhere. But the old order of sequence, "first a dogma and then a doubt" still prevails ; and we are gradually being liberated and left to judge for ourselves. If only those who are possessed of facts that are facts were

allowed to decide the most important questions, we should have a much better claim to the title of rational physicians, and wholesale, criminal blundering would soon go out of fashion.

In this epoch of expansion there is a deal of spurious science as there is of false logic, and, like ignorance and illiberality, they are pretty sure to hunt together; but time, training and an improved technique are doing wonders in the elimination of whatever is untenable and unworthy. The truth is that reason and logic are not safe barriers against the encroachment of quackery, or all forms of it would have died long ago. For the further we look into the ancient history of medicine the more lax the science and the more shabby the arguments that ought to be condemned to eternal sterility.

If one thing more than another characterizes the present age it is the careful and trustworthy discrimination of facts that are related to the various branches of study. Not only are they sought for with an unusual avidity, but they are identified, sifted and utilized as they have never been until now. Science applies its practical touchstone and the result can be verified and vouched for. The imagination and the fancy are excluded from the witness box. We are learning to depend upon actual and not upon alleged facts as a basis for theory and practice; and a host of earnest men are filled with the same spirit that prompted Hahnemann, a hundred years ago, to tests his drugs on those who were well before giving them to his patients. His scientific instinct did not mislead him, and the logical or illogical bias of the whole medical world could not turn him from his purpose. He had the true conception of applied science as it is related to the art of medicine, and absolutely forecast the progress of the present day. Before this flourishing Society has doubled its age and its membership his method of getting at the root of things in practical therapeutics will have a merited recognition. Some of his theories and deductions, his after thoughts and aphorisms may not commend themselves to us; but his

principle of determining the relation between morbid actions and curative agencies will always justify itself with those who prefer to be skillful at the bedside, and in the clinic, rather than to abound in argument that may be as baseless as the fabric of a vision.

The conditions of time and place have always had their effect upon medicine as well as upon literature; indeed, those conditions being common to both, they have run on parallel lines. Galen's writings were the Scriptures of the medical clergy, and the influence of his fanciful pathology was paramount for 1,500 years! What Bacon styled his "improper mixture of elements, an excess of black bile, yellow bile, etc.;" his classification of remedies by their qualities of heat and cold, dryness and moisture; his originating the habit of polpharmacy, that *mitrailleuse* of the drug arsenal; his describing more than fifty variations in the quality and rapidity of the pulse; as well as his claim for infallibility as a physician, all betray defective powers of observation and a perverse ingenuity in putting the cart before the horse.

Time was when logic was first and science limped a long way after; but now that they can stand upon their own feet, they should give a mutual and a united support to practical medicine and surgery. What we need, and very much need, is a readjustment of the relations between faith and works, fact and reason. We should cease to contend about dogmas, for, tenacious as they are of life such narrow misconceptions must ultimately become obsolete and discredited. Our opportunities lie in a greater age than did those of Hippocrates, or Galen, or Harvey, or Hahnemann. We know better than to be altogether misled by the saying of Aristotle that: "The philosopher should end with medicine—the physician commence with philosophy."

The point in all this is that the history of medicine, like that of religion and philosophy, is one of varying and opposing sects. They have always existed as warring fac-

tions, and without them there could have been no progress. The boasted consistency and continuity of our art is artificial and fictitious. Professional and popular superstition, the preponderance of theory, a faulty observation and disregard of facts, the low estimate of practical skill and experimental knowledge, and the dependence upon authority for the best rules of faith and practice explain why the doctors have always disagreed. With such a disparity of belief, and such illogical methods they could not blend their resources or bend their best energies to get the best results.

The reason why the science of to-day is more trustworthy than that of former times is that there is a greater number of those who are especially trained to apply its rigid tests. And those tests are much more rigid than they ever were before. Let us have the facts, the absolute, incontrovertible facts, and the logic will take care of itself. We need not reject the old facts, from which the wrong theories were deduced by our ancestors; nor the new ones, from which the right inferences (so far as homœopathy is concerned) have been excluded by our neighbors; for in every case, and with each new discovery, the conclusions drawn, and the maxims inculcated, are personal to the leader and to his followers, who may be too easily convinced of the value of theoretical and visionary claims.

I must leave it for you to make the application and to fill up the outlines of these brief allusions. False logic has always been a sort of mischievous intermediary between the reason of the doctor and the rights of his patient. Doubtless much that we now hold to be true will prove to be shifting and uncertain, for human experience must ever be tentative and progressive. "When there was no religion outside of the curate and no state outside of the soldier" freedom of opinion in medical matters was simply impossible. Under such conditions the attempt to arrest the progress of disease and to abridge its duration was a very different affair from what it is now; and the glory of

our age, preventive medicine, was positively unknown. The immensity of its benefaction belongs to applied science, to the use of its faithfully digested facts, to the protracted patience and the studious and practical bent of its workers and its friends. We need not be afraid lest the development of modern science should interfere with our principle of therapeutics, for a natural law cannot be contravened or superseded by a new discovery any more than by a new dogma.

If we broaden and liberalize the work of our technical education; if we are careful not to jumble the useful and the useless together by accident or prejudice; if we remember that correct thinking must accord with the facts of the case; and if we raise a standard of scientific honor and accuracy rather than one of mystic vagueness and illogical folly, we shall grow in the esteem of right-minded men the world over, and help to save whatever of good there is in our calling for the benefit of the race and the blessing of mankind.

THE MEDICAL TREATMENT OF EPILEPSY.

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The treatment of epilepsy is an undertaking of great concern both to the physician and surgeon. Probably no disease furnishes a greater percentage of failures in every effort to perform a cure. There have been many spasmodic speculations as to the efficacy of different drugs, and extravagant claims are often made as to the value of surgical procedure. Panaceas and patent remedies galore have received the usual testimonials of a gullable public; and still the disease is formidable, while the "sure cures" are one by one relegated to forgetfulness. For that reason every suggestion of treatment is taken with several grains of salt, and it requires the enthusiasm of ardent determination to undertake even the consideration of such an ef-

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fort. Yet if there is anything in scientific attainment, and more than all, if there is any truth in the law of similars, it seems that this unfortunate ailment should find some degree of relief by means of modern medicine.

To begin with, it must be admitted that there are many epileptics who are doomed to their fate from certain congenital stigmata. The child which is born with cranial asymmetry does not generally possess a motor or mental brain which can withstand or overcome the cell excitement in the pathological condition of epilepsy. The prominent parietal eminence, the small frontal area, the broad occiput, the short palatine arch, the irregular teeth, the pronounced taurus palatinus and the absence of a true aural lobe are all the signs of physical imperfections, which plainly point to a degeneracy conducive to epilepsy. As these anatomical conditions cannot be overcome, we can, in such cases, expect little remedial benefit.

Again the question of heredity is one of endless uncertainty, and it is hard to account for all the exigencies of disease which date from this. The neuropathic inheritance is one hard to combat, and the child of insane or epileptic parents has a history which every physician fears.

There are also predisposing causes which enhance the epileptic paroxysms and make the prognosis variable in degree. The more fixed the predisposing habit, the more complicated becomes the lesion, and therefore, less hope of recovery can be entertained. Alcoholism, specific disease, and the emotional temperament are the most characteristic factors in this respect.

Then there are a large class of cases which might properly be termed the traumatic epilepsies, in which there is always a history of injury. These, together with those in which there is some organic tissue change in the cerebrum, give little hope of recovery to any method of treatment. They still afford opportunities for the surgeons to display their skill but as yet few beneficial results have been obtained.

By many authors, epilepsy is still regarded as a functional disease which manifests pronounced morbid phenomena without any known anatomical changes. As the lesion partakes of the degenerative character the symptoms are local, and such cases are at once classed with the incurables outlined above. When the symptomatic expressions are secondary to other conditions, the disease is regarded as an acquired neurosis; and then more hope is ex-

tended to the unfortunate victim. There is a semblance of truth in such an estimate, but the fact remains that as long as the cerebral structure, and its superimposed membranes are not vitally involved there is hope of recovery, when, however, this tissue is in any way destroyed, recovery is doubtful. In other words, a physiological perversion is curable, but an anatomical one is not so hopeful.

Let us then look a little into the pathology of epilepsy and see what basis we may find upon which to establish our treatment. Without entering into detailed minutiæ, it is quite safe to say that the pathological change is located mostly in the cerebral cortex. It involves the cells almost exclusively and particularly the second layer or angular cells. The morbid development, so far as can be learned, is an induration; this is produced by a gradual sclerosis, or more correctly, a gliosis, due to an increase of glia cells or neuroglia tissue. This is soon followed by a nuclear cell degeneration and later a vacuolation. The convolutional transformation is not a morbid one, and, except for a chronic leptomeningitis, or possibly, a cranial depression, the above pathological explanation will answer for most forms of the disease.

If now we consider the physiological phase it is observed that the epileptic fit is due to the sudden discharge of nerve force from the cells about which the infiltration has taken place. That this excess of nerve energy exists because the nerve cells are in a state of chronic irritation, there is no doubt. Add to this the afferent irritation which may come from any fibres tributary to this region and the possibility of epilepsy is at once understood. Therefore if there is any psychical disturbance the arcuate fibres of the frontal brain contribute an additional irritation to the motor area and we have psychical epilepsy. If the motor area is involved by cranial depressions, meningeal inflammation, or tumors, then we have a limited or Jacksonian epilepsy. Again, if there is an increased excitement of the sensory or afferent tracts of the cord, the cortex cells, already indurated, create paroxysmal reactions, according to the cord disturbance. This may be called sensory epilepsy.

In the consideration of treatment, the first requisite is to remove the irritating cause, and in the second place, to decrease the cell hyperplasia. In the very beginning we are obliged to exclude from hope those congenital cases in which the anatomical stigmata are pronounced. Next we find that the traumatic cases, in which the cortex tissue

has been injured, do not offer much encouragement. The heroism of surgery has made some brave attempts but it is now generally accepted that the knife will create more cicatricial tissue than it will cure.

We have left then for remedial investigation the physiological cases, the motor epilepsies, wherein there are no outward anatomical changes and the sensory forms. Here I believe we have a field worthy of study to affiliate the homœopathic remedy.

For the psychological cases we have much hope from the recent advance in suggestive therapeutics, and I have no doubt but that the future will reveal a greater advance in that line. Then too, the more we can relieve and discipline the overtaxed mental cells by the variation of habit, thought and vocation, the more we accomplish in the way of relief. The *status epilepticus* can surely be helped by every effort which strengthens mental power and takes away the wear and tear of worry.

The older method has been to resort to bromides; potassium bromide has been the most frequent form ; the combination of the three bromides has also been a favorable prescription. As yet no permanent result has been obtained from this method. The only claim has been a temporary suspension of the attacks while the after-results are worse than the disease itself. The ammonium salt is perhaps of some value, particularly in cases of choreic character. This I believe can be used to advantage in the homœopathic potency.

Strontium bromide is less dangerous and probably gives better results. It certainly has a better action on the alimentary canal, but as it requires heroic doses it is liable to debilitate the nervous system. Solanum carolinense (the horse nettle) is one of the newer remedies and is well worth our future study. I am quite sure that it is a similimum in many cases. It seems to lessen the force of the paroxysm and probably has a decided cerebral vasomotor power. In this way it diminishes the vascular pressure in the cortex and gradually overcomes the gliosis or neuroglia increase. My greatest success with this remedy was in a case of long standing where the tendency to melancholia was extreme. Though the woman had suffered for years, she is now surely gaining her mental equilibrium and the paroxysms are almost a thing of the past. Unfortunately, the remedy must be used in the fluid extract (teaspoonful doses three or four times daily) and

therein lies the greatest danger. My fear is for the possible after-results.

Antipyrine, sulphonal and trional, have had their claimants, but these are hypnotics which we always fear. Flechsig has laid great stress upon the use of opium in conjunction with the bromides. His method consists in the rapidly increasing doses of opium for several weeks previous to the bromides. A quarter of a grain is given three times daily and then gradually increased to five grains. After six weeks this drug is suddenly stopped, when potassium bromide, in half drachm doses, is substituted for a month and then gradually decreased. Bechterew's combination of bromides, adonis vernalis and codein has been advocated by many, and simulo, a plant of the hyssop family, has had its proportion of good results. None, however, of the remedies or systems of treatment have, as yet, given any decided statistics to hold to and the bad effects of drug stimulation will condemn all of them.

Auto-intoxication or the absorption of toxic substances from the intestines is a pathological consideration which has forced itself to the front of late. It should not be overlooked, especially when one of the most characteristic symptoms of epilepsy is an inordinate appetite. This shows conclusively that the alimentary canal is a great factor in any functional brain disturbance. It furthermore confirms the theory of reflex epilepsy and thus substantiates many of the claims for local treatment and possibly for operations outside of the brain. To deny the existence of sensory epilepsy is to refute the existence of afferent sensations. I fully believe, that, excepting the traumatic, physiological and congenital forms, we must look outside of the brain to find relief.

If this auto-intoxication is a predisposing irritant, then the question of dietetics is paramount. The regulation of diet therefore will insure the best results; and without doubt we shall soon find that the best form of food for this purpose will be of the vegetable character.

But above and beyond the routine method of prescriptions, we shall discover the value of our law of similars; it is just as applicable to the treatment of epilepsy as in any other disease. It is unfortunate that we do not trust it better in such cases. For some unexplained reason we hold up our hands in horror and forget its efficacy when we observe an epileptic spasm. For my part, I am confident

that I have relieved many and cured other cases by holding fast to this principle. The disease is a hard one at best, but we can certainly do more with the homœopathic remedy than with all the palliatives. "*Tolle causam*" is a very good precept in the practice of medicine, but there is always something back of the pathological cause which is expressed in the nature of a symptom. A picture is not perfect without a background, and so we are sure to find something behind the morbid condition of disease. It is this complete picture of disease which we must appreciate if we seek a cure.

In the scope of this paper I would not attempt to enumerate many remedies; I would simply call attention to two: They are cuprum metalicum and kali muriaticum. The former is the most perfect similimum of the epileptic spasm. It moreover has a peculiar grouping of symptoms and a periodic tendency similar to the disease. It has a deep seated action and therefore pertains to the involvement of brain cells below the neuroglia layer. Thus it is very useful in cases of long standing and in adult subjects. Its powerful influence upon the alimentary canal makes it valuable in the reflex or sensory form. In like manner it controls the violent delirium or the tendency to stupor, and thereby preserves the function of the cortex motor cells. To prevent the sudden explosions of motor force, there must be an equally distributed arterial pressure and a perfect mental inhibition. To stop the paroxysmal frequency the brain structure must be well nourished and the mind must have control. Cuprum will do this more satisfactorily than any other remedy. To me it has been a sheet anchor in the treatment of old and obstinate cases, and if the time was sufficient I could give statistics in confirmation of the claim.

Kali muriaticum is one of the tissue remedies too easily overlooked. Its delicate affinity for the nerve centres makes it a slow acting remedy. Inasmuch as the physician too frequently seeks palliation in epilepsy, it is not generally employed long enough. Without doubt it preserves the fibrin factor and prevents a tissue metamorphosis. This, I believe, should be the therapeutic aim in treating this disease. It is simple enough to relieve a fit for it is in itself self-limiting. The real object is to overcome the morbid degeneration. The protoplasmic fibres are surely strengthened by kali mur., and such a condition tends to preserve the brain integrity. When the brain cells are

properly nourished, they can withstand the irritation of the sensory fibrillæ which surround them. This being done we have made the first advance toward the removal of the cause of the disease. While I do not make the claim of any specific, and while I admit the difficulty in curing this terrible disease, my record book gives much substantiation of the above statement. I had expected to present the case of a boy who had suffered with a severe form of epilepsy, but who is now surely within the hope of recovery. He has been under my care for some time and his only remedy has been kali mur. 6.

CLINICAL CHIPS.—*Annexitis* is the new term for inflammation of the uterine appendages.——Muco-membranous colitis has a host of allied affections such as displacements of the kidney, the liver, the spleen, the stomach, the ovaries, the uterus, the bowels and the mesentery, stenosis of the large intestine, appendicitis, indigestion and intestinal lithiasis.——If a solution of cocaine is warmed before using its anæsthetic effect is more rapid, intense and permanent.——The appearance of labial herpes is a favorable sign in pneumonia.——In the majority of cases uterine fibroids are the cause and not the result of sterility.——The antivenomous serum of Calmette, prepared from the rabbit, is a very successful remedy for all kinds of snake-bite.——The first book on the diseases of children published in America appeared in Philadelphia in 1810, and was written by a woman who withheld her name.——Championnière says of appendicitis, "The surgeons of to-day endeavor the first thing to cause an evacuation of the intestine, while physicians carry out the exact opposite, and if they suspect appendicitis give opium, which is an excellent method of rendering an operation necessary before long."——The general paralysis of the over-fed diabetic, first described by Charpentier in 1890, may often be cured by a proper regulation of the diet.——The skin of a patient who is reacting from an anæsthetic, especially from ether, will be burned or blistered at a lower temperature than usual.——Fowls are immune to human tuberculosis.

Clinical Society Transactions.

CORNELIA S. STETTLER, M. D., Corresponding Secretary.
ORRIN L. SMITH, M. D., Recording Secretary.

MAY MEETING, 1897.

The Twenty-first Annual Meeting of this Society was held in the Hahnemann College amphitheatre, Saturday evening, May 29, President Shears in the chair.

THE ANNUAL REPORT OF THE RECORDING SECRETARY.

BY ORRIN L. SMITH, M. D.

In presenting my annual report of the work of the Clinical Society for the past year I am pleased to make record of its growing prosperity and usefulness. Twelve regular monthly meetings have been held, thus closing the remarkable record in which for twenty-one consecutive years only *two* of its monthly meetings have been missed. Under the lead of the very efficient chairmen of the different sections *sixty-four* original papers have been presented. These papers were most appropriate and were all of a very interesting and strictly clinical character. Together with the discussions thereon, which were participated in by the members generally, they have been published in the monthly issue of the Clinique, making about *four hundred pages* of that excellent periodical.

This, which is an extraordinary yield for a local society, is largely due to the clinical fidelity of its president, Dr. G. F. Shears, who has been seconded by the active membership in an organized effort to sustain and to build up the interests of the Society. Among those who have furnished papers, and who took a chief part in the discussions, were: Drs. Bailey, Barker, Blackwood, Bittinger, Bruce, Chislett, Clapp, W. A. Cotton, Cobb, Collins, Crawford, Croftan, Dunn, Evans, C. Gurnee Fellows, Forsbeck, Gilman, Kate I. Graves, Halbert, Halphide, Haseltine,

Emily L. Hill, A. A. Hinkle, Holmes, Honberger, Kahlke, Leavitt, Ludlam, Sr. and Jr., MacCracken, Elizabeth C. Maas, Mack, H. J. Payne, Shears, Stettler, Sturtevant, Swan, Taylor and O. L. Smith.

In many of the meetings the interest was enhanced by the exhibition of morbid specimens and the examination of living patients that were brought before the Society.

The presentation of this report was followed by that of the Treasurer, Dr. Cornelia S. Stettler, which showed the Society free of debt after paying all its expenses, a balance on hand and some assets in the way of dues that would be bankable if the times were better.

THE ANNUAL ELECTION OF OFFICERS.

The election of officers for 1897-'98 resulted in the choice of Dr. A. K. Crawford, President; Dr. Sheldon Leavitt, First Vice President; Dr. Jessie E. Shears, Second Vice President; Dr. Cornelia S. Stettler, Corresponding Secretary and Treasurer; Dr. Orrin L. Smith, Recording Secretary, and Drs. G. F. Shears, Cobb and the two Secretaries, Executive Committee.

REPORT OF THE SECTION ON THE PUERPERAL DISEASES.

SHELDON LEAVITT, M. D., Chairman.

XXXI. The question of vaginal incision. By Dr. Sheldon Leavitt.—A decade ago the best operators were reluctant to practice any form of surgical intervention through the vagina, which it was possible to accomplish through an abdominal incision. Even drainage through the vagina was viewed askance, and the results of it, when so practiced, were declared to be most unsatisfactory. Vaginal puncture for relief of pus accumulations was for a time looked upon with approval, but the attendant accidents and ill consequences soon brought even it into disrepute.

But a change has come over the spirit of our surgical dreams, and present indications are that the proportion of abdominal operations, already greatly reduced, will soon

fall far below a moiety of all cases which require surgical invasion of the pelvi-peritoneal cavity. One of the questions now discussed with great warmth, and one which proves the marked concessions made to the advocates of the vaginal route, is that which concerns the extent of exsection of the pelvic viscera which it is wise to practice; for there are still some who maintain that intervention should always be as conservative as strict justice to every involved interest and physiological function will allow.

I do not purpose to trace the course of events which have affected this remarkable change in surgical opinion and practice. I shall have said enough upon that feature of the subject when I assure you that it has been wrought through a conscientious effort of operators to secure the best results, and hence proceeds from an equally conscientious regard for the patient's best interests. Surgical sentiment has so far changed, that we have a right to claim, in the face of emphatic denial by some good operators, that the vaginal route, when elective, is to be preferred.

Assuming that there is a measure of agreement as to the desirability of invasion of the pelvis from below, the question which excites most interest and discussion is that of determining to what cases it is suited. It is not to be presumed that harmony of opinion here exists, and I shall not undertake the task of effecting it; besides, the subject is too vast to be comprised within the limits of such a paper as I now present. It is my purpose to narrow the scope of the present discussion to such vaginal incision as does not contemplate the ablation of any structure, nor the use of cutting instruments within the peritoneal cavity.

In this restricted view of the subject, the first inquiry which I shall attempt to answer is: Under what conditions may vaginal incision be regarded as preferable to abdominal incision? In reply to such a question I am at present inclined to say, (1) In occult pelvic conditions not complicated by evidence of very extensive exudate or strong adhesions, for exploratory purposes and possible radical operation; (2) when there is pus in the pelvis; (3) in retroversio-uteri with old adhesions, and (4) in incipient post-puerperal peritonitis.

1. Exploration of the pelvic viscera through an abdominal incision is a common practice, and the wounds made for this purpose are often three or four inches in length. Why have we not long since adopted vaginal incision as a preferable avenue of exploration in certain suitable cases?

I do not believe that any one would commend such a procedure as an exact substitute for the older and less circumscribed abdominal approach, but when the suspected lesions are situated within the pelvic cavity, and firm adhesions are not likely to forbid free movement of the exploring finger or fingers over the uterine superficies, there is no good reason why we should not avail ourselves of its benefits with the greatest satisfaction. I wonder if the accessibility of every part below the superior pelvic plane, by means of the fingers entered through an incision in the vaginal vault, is recognized. To be sure the fingers cannot always be made to reach every part of the pelvic cavity without introduction of the half hand within the vagina; but even that is not likely to materially augment the dangers. When there are no adhesions to prevent, or even after breaking up minor adhesions, the tubes and ovaries can usually be coaxed to, or through the opening, so as to admit of careful inspection. Moreover, by putting the patient into Trendelenburg's posture and using long-bladed retracters, much of the pelvic contents may be inspected in situ. One observer declares that he has thus been favored with a view of the appendix vermiformis.

2. Pus, when in the pelvis, has been found chiefly in the Fallopian tubes and the ovaries; and the classical operation for its relief has long been excision of the diseased parts, when possible, through the abdomen. Péan, of Paris, set in motion the impulse which has resulted in the growing preference for removal of the morbid appendages through the vagina. There is no doubt that some operators who are impelled to choose the vaginal route from motives of safety, would prefer in many instances to leave the uterus behind; but the vaginal canal is circumscribed, and such conservatism would involve much effort, a lengthened operation and augmented risks. We are therefore led to admit that a safe removal of a pyosalpinx or a suppurating and adherent ovary through the vagina, without coincident removal of the uterus, is not often a practical undertaking. Out of these considerations grew the warm discussion, begun three years ago, concerning the advisability of uterine removal along with diseased appendages, upon one side being arrayed those who have a preference for invasion of the diseased pelvic cavity through the vagina, together with a few abdominal operators; while upon the other side are found most of the older, but none the less intrepid surgeons who, from a

wealth of experience, have become familiar with every centimetre of abdominal anatomy, and are content with the results which their good work, and a kind Providence have accorded them.

It is evident, then, that when thorough work in these cases is undertaken from below the uterus must be sacrificed. All other operative work undertaken through the same route for the evacuation of pus, while it may prove curative, should be understood as less certain to effect permanent benefit, and to assume largely the nature of an expedient.

I have no intention to discuss at this time the relative claims of cœlio- and vagino-hysterectomy. Vaginotomy, without deep instrumental interference, being the operative measure under consideration, it is plain that it is best of all suited to the cases to which I have just alluded, namely: Those which create an exigency which must be promptly met, but which may not warrant a radical operation. Pus in the pelvis ever remains a constant and grave menace to life, the more so provided it be the result of recent inflammation: and the astute surgeon will not hesitate to remove it. It is in such an emergency that surgical judgment as to the measure which offers best hope of a favorable outcome is of high value. To open the abdomen and deliver diseased tubes and ovaries, or to do vagino-hystero-oöverectomy, would likely prove fatal by reason of shock. But thank God there is for such a case a method of rescue safe and sure, even if not full and complete, afforded us in vaginal incision, and its virtues ought to be more generally known.

The history of the surgical treatment accorded pus in the pelvis is analogous to that of the treatment bestowed on appendicitis. The primary surgical method of dealing with the latter partook of thoroughness, with a purpose of removing all the involved structures, even at considerable hazard. But now the rule of action limits the immediate work chiefly to evacuation of the pus and the establishment of thorough drainage. In either case modern methods call for immediate rescue of the jeopardized life by comparatively simple measures, even at the risk of a remaining necessity for subsequent radical intervention.

"In conclusion," says Dr. Amos W. Abbott, of Minneapolis, in a paper on the subject recently read before the Chicago Gynæcological Society, "it may be said that the above statistics would indicate that this operation should

be adopted, at least as a preliminary measure, in all cases of pelvic inflammation uncomplicated by tuberculosis, appendicitis, intestinal obstruction, malignant disease or large or inaccessible tumors or abscesses."

"I would enumerate the especial indications for vaginal section," says Dr. Wm. D. Haggard, Jr., of Nashville, in a paper on the subject read before the Southern Surgical and Gynæcological Association, "aside from exploratory purposes in the three following classes of cases: (*a*) Early cases of acute suppurating salpingitis. (*b*) Incipient post-puerperal peritonitis. (*c*) Large pyosalpinx and true pelvic abscess."

Vaginal incision does not find its commendation in any facility which it affords for getting at morbid pelvic conditions. In truth, were we to be controlled in our choice of route by considerations of case alone, preference would be given to cœliotomy. I do not bring up the question of vaginotomy, as in any event a substitute for abdominal section, with a thought of making it an operation which the novice may undertake with impunity, for, without question, an equal degree of surgical skill and tactile acuteness is required, no matter which avenue of approach may be chosen. At the same time there is no wisdom in advocating a change from the older methods unless decided advantages are to be found in practicing the new. If then the latter possesses advantages, wherein are they to be found? Let me briefly numerate them.

First. When we operate for pus from below, we are enabled to tap the accumulation at its floor and provide the best sort of drainage. In order to reach it from above, we are often obliged to unroof the abscess by separating numerous and firm adhesions, and if unable to make a clean removal, we are driven to the necessity of drainage upward through the abdominal wound, unless we make a vaginal puncture or incision, thereby creating nearly as much additional traumatism as an original operation would have involved.

Secondly. In operating through the vagina for the evacuation of a pelvic abscess, there is often a preservation of organs which would otherwise require to be sacrificed. Doubtless many ovaries and tubes have been removed, when operators were limited mainly to the abdominal route, which might have been saved. I believe that it will soon be common practice to resort to vaginal incision primarily, reserving for more radical work those cases only

wherein health is not wholly restored by the simpler operation.

Thirdly. Hernia is far less frequent than in abdominal incision. Upon this I do not need to dilate.

Fourthly. The results of vaginal incision for pus in the pelvis, are far more gratifying.

In an interesting discussion of the subject of *suppurating hematoceles due to ectopic gestation,* by the Philadelphia Obstetrical Society, at a recent meeting, Dr. C. P. Noble spoke as follows:

"Dr. Price opposes the plan of treatment advocated to-night and advises abdominal section in all cases of ectopic pregnancy, whether the hæmatocele be suppurating or not, and charges all those who resort to vaginal incisions in these cases—which, of course, includes myself—of timidity. I am quite willing to rest under this imputation, if thereby I can save a number of lives which would otherwise be lost. The statements of Dr. Price might have made a greater impression upon me were it not that most of the time I have been engaged in this work I followed the line of practice which he advocates, and it is because of the bad results which abdominal section gives in this particular class of cases, namely: large collections of pus in the pelvis, that for such cases I have abandoned abdominal section, and now resort to vaginal incision and drainage. The experience of all men who have reported their work carefully has been that between 20 and 30 per cent of this class of cases have died when operated upon by abdominal section, including the radical removal of diseased structures; whereas, by a free vaginal incision, followed by efficient drainage, the mortality rate is almost *nil*, a goodly percentage of the cases is completely cured, and the remainder are so greatly benefited that if a further radical operation is demanded it can be done with a minimum of risk. I quite agree that 'sticking a little hole,' a mere puncture into a large pus accumulation in the pelvis is miserable practice; but this is not what is advocated. A free incision is necessary, preferably a semi-lunar incision, so that a flap which is formed will favor drainage. So far in all the cases I have treated by this method, whether suppurating hæmatocele or suppuration from any other cause, a prompt healing has been effected, and in not a single case does a sinus or fistula remain.

"Dr. Price objects to vaginal drainage on the ground that all cases so operated on will require a secondary abdominal section for their cure, and that the risk of this secondary operation will be greater than that of a primary cœliotomy. I have no question that he is in error on both these points. When I began using vaginal incision and drainage for pus accumulations, my own views as to the necessity of a secondary operation corresponded closely with those of Dr. Price, but experience has shown me that much better results can be secured by this method than I had supposed possible. The experience of others with which I am familiar amply bears this out, so that it can be said without exaggeration that not more than from 20 to 30 per cent of these cases will require further treatment if the preliminary incision and drainage is thoroughly practiced. I must disagree entirely also with the contention that, should a secondary abdominal section be required, it will be more risky for the patient than if an abdominal section had been done in the first place. Patients having large pus accumulations are very sick and stand major operations badly. Many of them have been

sick in bed with septic fever for weeks; they are emaciated; their nutrition is poor; their kidneys and other emunctories are crippled; the pulse rate is rapid and the heart feeble; in short, the patients are typically bad subjects for a serious operation. If an abdominal section is done upon such cases, in order not to be fatal it must be hurried, the work incomplete; drainage must invariably be used; and if the patient recovers, the abdominal and pelvic viscera are in scarcely, if in any better condition than after a vaginal incision—as, very frequently, in these large pus accumulations it is necessary, in order to avoid a fatal issue, merely to drain the large abscesses and to leave the diseased tubes and ovaries in situ."

Let us briefly review the chief objections raised against vaginal incision by those who hold wtih great tenâcity to the older methods of dealing with the conditions which some of us are now treating by less radical measures.

First.—It has been intimated that there is a degree of surgical timidity about it. The conscientious surgeon, like the conscientious layman, should always fear to do anything from which his moral sense may shrink, and on account of which he is liable to suffer the impungings of the inner monitor. When his course appears to be unmistakable, his hand and his heart do not evince any sign of trepidation ; but, when he is not fully persuaded in his mind as to the wisest course, or when, from servile bondage to custom, he proceeds with an operation which might well be substitued by one of less danger, it is no wonder that his heart fails him. I truly believe, as an eminent operator has put it, that vaginal incision " takes an better man to do it well than to open the abdomen and remove the appendages."

The latter suggestion leads me to mention as an alleged reason for rejecting the operation that

Secondly.—It is said to be exceedingly difficult to do thorough work in the dark. This is quite true ; but the objection does not carry much weight in the case of one who has educated his tactile sense to a high degree. Modern abdominal operators, as the result of adopting Trendelenburg's posture, have come to depend less upon the sense of touch than did the operator of a decade ago ; but even now there are many who rely on the feel, rather than the sight, in much of their abdominal work, and yet secure admirable results. It is quite true that pathological conditions do greatly mask anatomical features, and experience only, coupled with a thorough familiarity with normal anatomy, is capable of rendering one expert. It is chiefly finger work, and after a little practice one ought to learn the difference in feel between an intestine and an en-

larged Fallopian tube; between a normal ovary and a segment of omentum; between an adhesive band and the superior border of the broad ligament; and between pus sac and the rectum. However, in no department of human activity is any one, no matter how astute, beyond the danger of an occasional fall into a "fool-trap."

Thirdly.—They say one is liable to perforate the bowels by this kind of operating. There is doubtless some truth in the allegation, since a loop of intestine, descending through a uterine rent during parturition, has been taken for the funis, and treated accordingly; but I would be reluctant to believe that an accident of this nature would be likely to occur under the finger of one sufficiently skilled to undertake an abdominal operation. Surely it is not expected that vaginal incision is to be undertaken by a bungler.

Fourthly.—The difficulties of hemostasis have been urged as a serious objection to vaginal incision. I cannot doubt that this is valid in certain instances, as, for example, in ectopic gestation, where we are liable to precipitate a hæmorrhage, not easily controlled, by rupturing the vascular relations of the ovum. In case of recent rupture of the gestation sac, with the formation of hematocele, there can be no question of the superiority of abdominal access to the peritoneal cavity, though, even there, should there be occasion for drainage, it is better to make it through a vaginal incision.

At the same time I would not accord to abdominal incision the preference in less recent cases, especially in those wherein suppuration has succeeded the extravasation. It may be added also that when it is evident that the sac has ruptured in a downward direction, so that the embryo and extravasated fluids are embraced within the folds of the broad ligaments, we may resort to vaginal section with a good assurance of success, the initial incision being along the base of the broad ligament, and the digital dissection consisting of separation of the ligamental folds, removal of the ovum and coagula followed by thorough irrigation and gauze packing. In such a case I cannot conceive of a hæmorrhage which would prove intractable, as the packing is made in a cavity with walls sufficiently firm to insure hemostatic efforts. I recently operated on a case of this kind.

If the case be one of unruptured tubal pregnancy it is quite possible to reach it in a similar manner, thus avoid-

ing the peritoneal cavity. I admit that as great difficulty is found in the differential diagnosis of many of these cases as in their relief.

I am persuaded that in other conditions leading to vaginal incision, inasmuch as blind use of instruments in a concealed cavity is forbidden, in the absence of harsh and careless manipulation of the parts there can be but little danger of serious blood loss.

Fifthly.—It is stoutly maintained by those who decry vaginal incision that, since it partakes of the nature of an expedient, a subsequent operation is usually required, and hence the primary operation might better be substituted at once by the work which will ultimately be demanded. Now the fact is that many cases of pelvic suppuration which are given relief through the vagina are permanently cured. Very likely some adhesions remain, but the health and the strength of the woman become almost ideal. Not all women who have this primary operation subsequently suffer until permanently relieved by more thorough secondary work. Indeed, a large proportion of them, to put it mildly, require nothing further, provided the evacuation of pus and the consecutive drainage have been thorough. The conservative and reparative processes of nature are most surprising. Exudates and extravasations are absorbed; adhesions and tumefactions are softened; redundances are reduced; rough places are made smooth; broken vascular relations are restored, and circulatory inequalities are overcome, so that abnormalities are reduced to a minimum and functions again established in their orderly courses.

We have good reason to expect, then, that thorough work, of its kind, will effect not a mere temporary succor, but that it will insure to the menaced patient a reasonable hope of permanent relief.

Sixthly.—It is said that a secondary operation is seriously complicated by primary interference of the character described. It is nearly always more or less hampered by the result of what has preceded it. This is to be expected. But we have no reason to believe that insuperable obstacles are thrown in the way of subsequent intervention, via either a ventral or a vaginal section, by a primary vaginal incision; nor are the risks to the woman materially augmented by reason of it. It is to be borne in mind, however, that the degree of embarrassment is very largely determined by the interval of time between the two operations.

It is patent that the farther removed the patient may be in point of time from the primary intervention, the fewer and less pronounced are the evidences of it.

The convictions, then, which I have derived from a careful study of this subject, coupled with a measure of experience with the operations involved, lead me at present to accord to vaginal incision, in pathological conditions of the pelvic organs, especially those complicated by accumulations of pus, an exalted place among the various measures for relief which have been proposed. It will be understood, I am sure, that the operation is not proposed for all cases without discrimination. In my opinion, the secret of discreet and successful surgical intervention is found in regarding each case as *sui generis*, and prescribing the operation which, in view of all the conditions, is best suited to it. When so employed, I do not doubt that the operation of vaginal incision will prove an efficient means of surgical rescue.

I have given much of my space to a discussion of the relative merits of vaginal incision as a measure of relief in pelvic abscess. It remains now for me to mention

3. Its applicability to retroversion of the uterus which is maintained by old adhesions. Such cases are not uncommon, though they are not as frequent as the superficial observer would lead us to believe. A post-cervical incision is made, the adhesions are broken up with the fingers, the uterus is restored to its normal position and either vaginal fixation is practiced, or Alexander's operation is performed.

4. I am satisfied that it will prove of inestimable value in incipient post-puerperal peritonitis. This appallingly fatal inflammation usually begins at a point which can be reached through a vaginal incision, and from what I am able to gather, the meagre experience with it encourages us to operate early, opening Douglas cul-de-sac and making free gauze drainage. By so doing we may occasionally succeed in arresting the fulminating process and thus in preserving life.

DISCUSSION: DR. SHEARS: I desire to express my word of appreciation of Dr. Leavitt's well written and comprehensive report. The subject is a timely one and full of interest to every physician who is engaged in surgical matters. Vaginal incision is not a new procedure, but the scope of the

operation has been so widened of late that its revival may well necessitate its consideration from the standpoint of a new method. Previous to the advent of aseptic surgery the fear of infecting the peritoneal cavity led to its very limited employment and following the adoption of aseptic surgery the surgeons were so enthusiastic over the possibility of opening the abdominal cavity without danger of peritonitis or infection, that they extended this measure to the treatment of all pelvic as well as abdominal complaints. As time has passed, however, the surgeon is beginning to realize that mere recovery from an abdominal section or even recovery with cure of the original trouble is not all that is demanded of him. He must not only cure the patient of the original trouble, but save every organ possible, and do it in a way that offers the least risk, shortest convalescence and smallest danger of subsequent complications.

Vaginal incision offers many attractions in this direction. It does away with the ugly scar, the possibility of abdominal hernia, the wearing of a truss, and it gives opportunity for the saving of important structures; and, more than all, it appeals to the general surgeon because it follows the surgical principle of draining from the most dependent point. The procedure has come to stay. I cannot forbear to call your attention to the similarity of the history of vaginal incision and of perineal lithotomy. Both were practiced at an early date; both were supposed to have seen their day. When the furore for abdominal incision was at its height all female pelvic organs were to be attacked through the abdomen; all calculi were to be removed by the supra-public method. Both are now restored to popular favor and bid fair to be the permanent procedures.

Dr. R. Ludlam complimented the author of the paper and then reviewed the rise and decline of different methods of operative diagnosis in abdominal and pelvic surgery: Tapping, which was often resorted to at one time, according to Kiwisch, gave a mortality of 17 per cent, and

has generally been adandoned. Vaginal puncture has proved so unsatisfactory, and so risky that, even by aspiration it is seldom practiced any more. Some years ago an experienced gynæcologist of this city lost a patient from hæmorrhage after tapping the vaginal vault.

Conjoined manipulation through the bladder had a brief run as a diagnostic expedient; and Simon's passing the whole or the half-hand high into the rectum was quite a fad until its author and everybody else gave it up as dangerous. But when these means came to be taken at their true value, and seldom used, a new diagnostic test was supplied. The ordinary explorative incision became, and still is, a precious resource; but it too has its limitations. It is sometimes essential to the exact diagnosis and the proper treatment of abdominal tumors, and nothing is likely to supersede it altogether; but in certain intra-pelvic troubles a safer and better route of exploration, and of operation, has been found through the vagina.

Péan, of Paris, began to treat large purulent collections within the pelvis by vaginal section in 1890, and in 1891 I saw him make the operation. For six years, therefore, I have often resorted to it, both in hospital and private practice, and my judgment is that it is especially useful in case of abscess, hæmatocele, and other serious lesions that are lodged in the lower pelvis. And, since this route gives the most ready and natural access to the lowest portion of the peritoneal cavity, and to the contained organs, when they are not drawn above the superior strait; since, when it is carefully made there is little danger of hæmorrhage, or of injury to the bladder or the intestines; and, since ample retro-uterine drainage is thereby secured, free vaginal section has a certain range of application as a diagnostic resource.

One thing that has established it in my confidence is that, as in an explorative laparotomy, after having made the incision, if it becomes necessary to remove a growth or any of the organs, the first and proper step for the operation will already have been taken, and it can be proceeded

with at once. My idea is that either or both of these modes of preoperative exploration may be necessary and should be resorted to in suitable cases, neither of them being advised or practiced exclusively.

As Richelot has shown, vaginal section and drainage are especially useful in distention and fluctuation of the culs-de-sac; in old and very feeble women; in bilateral lesions of the appendages; in case the pus is probably virulent; in great emergencies; if the uterus is friable, and soon after delivery.

VOLUNTEER PAPERS. XXXII. A FEW RARE CASES IN GYNÆCOLOGICAL SURGERY. BY DR. R. LUDLAM, JR.—The following notes and specimens are presented to the Society in the hope and belief that they are possessed of some clinical interest:

1. *Parovarian cysts.* Here are two fresh specimens of these comparatively rare growths that are unusually large, one of them having weighed thirty-five and the other thirty pounds. I removed the larger one from a patient in the hospital April 14, six weeks ago; and this bottle of fluid which has stood in a warm room, still maintains its clear, spring-water character, without any deposit. The patient made a prompt recovery, and returned home well.

In the second case the operation was made May 17, or twelve days ago. Before and after the removal of this tumor the abdomen had the peculiar shape that is observed in these cases when they are uncomplicated with ovarian and uterine growths. Its contents are shown in this bottle as characteristic. The patient is almost well again.

These two cysts have been inflated and carefully injected with a carmine fluid so as to show their extreme delicacy and vascularity. The fine tracing of the vessels resembles that of a moss agate, and is even beautifully microscopical. The walls of the cysts are thin and translucent, but tough in their texture, and the larger one has two layers that were distinct and separate from each other throughout almost the entire extent of the tumor.

2. *Multilocular ovarian cyst with endogenous cysts in each of the compartments.* This tumor was removed by an ovariotomy ten days ago, and I present it as somewhat peculiar. There are three large cysts with well-defined compartments which contain a thick, ochre colored fluid. Each of the compartments also enclosed a lot of endogenous cysts that are shown in this remarkable specimen. The weight of the tumor was fifteen pounds. The patient was sixty years old, and is making a prompt recovery.

3. *Tait's perineal operation in extreme cases.* Among the various plastic operations that have recently been made in this clinic there have been several for an extreme degree of perineal laceration, in which operations had been previously made but without a good result. Under these circumstances, where the tissues have been cut away, or atrophied, or both, Tait's flap-splitting is the only practical recourse. Every one of these cases has recovered and the results have been satisfactory; but there is one point that should be borne in mind in estimating the completeness of the recovery. It is that, while there is no possibility in the worst of these cases of restoring the perineum with its proper integument, the sphincter may be so repaired as to secure a natural and absolute control of the bowel, which is the essential thing after all.

XXXIII. THE TOTAL BILATERAL RESECTION OF THE CERVICAL SYMPATHETIC IN EXOPHTHALMIC GOITRE. BY M. THOS. JOUNESCO. TRANSLATED BY DR. C. J. SWAN.*—The *total bilateral* resection of the cervical sympathetic has never been practiced until now in man, nor indeed, I think, in animals. It is, therefore, a new operation which I have had occasion to perform six times successively.

My cases are divided thus: Two of Basedow's disease; two of essential epilepsy; one little girl choreic and epileptic at the same time; and the sixth case, one of Basedow's, is as yet too recent to report.

I shall treat successively the causes which impelled me to this new operation, the operative technique, the results obtained and the indications for the operation. Two facts

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suggested to me the idea of attempting this intervention, which appears, *a priori*, to be condemned by the physiologists. (1). Attempts have been made at section and partial resection of the cervical sympathetic by the following surgeons: Alexander, made in 1879, a complete bilateral resection of the superior cervical ganglion; Vacksh, in 1892 ligated the sympathetic cervical plexus with the vertebral artery and vein; and Bogandic, in 1893, made a resection of the middle cervical ganglion. Chipault says: "After having performed extirpation of the superior cervical ganglion in twenty-four cases that atrophic and vasomotor troubles of the face are not to be feared, and no accident has happened which ought to prevent the surgeon from undertaking the operation." One notes that when the operation is made on one side only, there is a slight contraction of the pupil and a lowering of the lid of that side. When, however, both sides are operated this deviation is not observed. There are no atrophic troubles of the eye, nor modifications of the temperature, or of the pulse, or of the cardiac function. "Finally," Chipault adds, "the interventions upon the cervical sympathetics are not without happy results in epilepsy."

Of the twenty-four cases, six were cured, ten improved, especially mentally, four remained unchanged and none have been aggravated; two died, but not from the operation. Therefore, 25 per cent are cured and many greatly improved. If we consider Gower's prognosis in such cases, the above is an especially good report. Chipault ended by saying that these conclusions merited confidence and that new trials in the line that he indicated are absolutely justifiable.

(2). In epileptics the cervical sympathetic presents an intense hyperæmia which exists also in Basedow's disease. The cause of the nervous and vascular troubles of exophthalmic goitre has been placed by many authors in the large cervical sympathetic. In this nerve autopsies have shown two kinds of lesions, appearing either upon the nerve trunk or in the cervical ganglion, usually in the middle and inferior ganglion. Atrophy of the nerve cells sometimes simple, sometimes accompanied by consecutive or interstitial peripheral proliferation, occurs.

These lesions do not appear to be constant and certain authors even deny them.

Thus led by these attempts at partial extirpation and the dividing of the cervical sympathetic, attempts which

have given insufficient therapeutic results, and, by the almost constant lesions of this nerve, I have been induced to make a more radical operation, consisting in the complete ablation of this nerve which appears to be for exophthalmic goitre at least, the principal agent of the several troubles which characterize this affection. * * *

The author here devotes several pages to a most minutely detailed account of his technique and of the various dangers the surgeon encounters while performing this extremely delicate and extensive operation, which consists in dissecting out the whole cervical sympathetic on both sides, including of course the superior, middle and inferior ganglions. He goes on to say: I have practiced this intervention in the following cases of which I shall give a short *résumé*.

Case 1. Exophthalmic goitre. E. P., age thirty, widow. Disease first noticed two months previously. Neck enlarged. Slight trembling and disphonia. She entered hospital August 12, 1896. The exophthalmia was more pronounced upon the left side than upon the right. Visual acuity normal. Graefé sign absent. Fundus examination showed the disk hyperæmic, the veins enlarged and serpentine, especially to the left, slight pulsation of retinal arteries; insufficiency of right internal rectus, the thyroid body enlarged, particularly the right lobe. Circumference of neck at this level thirty-seven cm. No pulsations nor murmur in the thyroid body. Pulsation of carotid, slight disphonia. Pharyngeal reflex abolished, the cardiac action irregular, pulse a little frequent, slight trembling in the hands. Operation the seventeenth of August. Bilateral resection of the entire sympathetic cervical.

Post-operative conditions. Swallowing difficult; voice slightly rough; cough; pulse 120. Wound healed by first intention. The succeeding days these phenomena disappeared; exophthalmia has completely disappeared. Goitre commenced to diminish October 15. Patient presented the following state: Neck 35 cm.; goitre sensibly diminished; exophthalmia completely disappeared; increased trembling; difficult breathing after great effort; pulse varies from 110 to 120. General state: Symptoms of exophthalmic goitre nearly all absent. Swelling of face and neck completely disappeared.

Case 2. Exophthalmic goitre. S. E., aged sixteen, scrofulous. Disease began in the spring while in my clinic

where I had removed tuberculous cervical glands. Then exophthalmia appeared, followed by goitre. At his entrance in the hospital, August 30, the following was ascertained: Exophthalmia pronounced, goitre well marked, neck at its largest measured 33 cm. Both lobes equally developed, action of heart accelerated to 110, slight trembling. Fundus of eye normal, slight insufficiency of the right internal rectus.

Operation. September 2. Resection bilateral of the sympathetic cervical made laborious by the presence of the old cicatrices and numerous well developed lymphatic glands. No resection of the inferior sympathetic cervical ganglion. Post-operative conditions simple; wound healed by first intention. Exophthalmia diminished rapidly and markedly; pulse, 108°.

Reëxamination October 15. Circumference of neck, 31 cm; exophthalmia almost totally gone; *facies* profoundly modified.

The author follows these reports with the three others performed upon epileptics in all of which he claims good results. He concludes as follows:

We see by the foregoing cases that in these diseases the operative results of this new method are better than the medical. From the operative point of view these interventions prove to us that one may with impunity take out on both sides all of the sympathetic cervical without any bad results to the organs that they innervate.

This fact appears to me of capital importance as it is opposed to the authorities upon physiology, and indeed in all my researches in physiology I have never been able to find a report of this operation made upon animals. In this connection an important point is the tachycardia.

Instead of diminishing after the operation it appears to increase for a time. Even in the case of epileptics immediately after the operation I have noticed an increase of the pulse. The only explanation of this fact which I am able to offer is the following.

The traumatism upon the cardiac branches caused by the resection of the cervical sympathetic influences the cardiac plexus which stores up a certain dynamic force of which the effect would be to exaggerate the contraction of the cardiac muscle. Perhaps also another factor must be added to explain this symptom. This is the concomitant section of the cardiac filaments of the cardiac pneumogastric which cling to those that spring from the inferior

cervical ganglion. * * * It is incontestable that the above results are beyond what we were formerly able to expect in cases of Basedow's disease. The disappearance of the exophthalmia and the diminution of the goitre have been very rapid and very marked, and up to the present time improvement is going on to such a degree that I hope for even better results than are here given. * *

Finally I think I am able to establish the following conclusions: First. One can resect the sympathetic cervical in its entirety on both sides without fear of ulterior troubles.

Second. This operation without being easy may *always* be attempted.

Third. In exophthalmic goitre which seems to have its seat in the sympathetic cervical, such resection is absolutely indicated. The results obtained in my cases have suubstantiated this proposition.

XXXIV. A CONSIDERATION OF FERRIC THERAPEUTICS. By DR. CHAS. H. EVANS.—Iron is an element widely diffused in nature and occurs in strata of the most diverse character and geologic age. It is also, fortunately for mankind, the most abundant of metals and exists in combination with various minerals to form ores, the state in which it is always mined. It is present in all soils in greater or lesser degree. Not only is iron plentifully dispersed throughout the world, but it is shown by the spectroscope to be a constituent of other planets, and even of the sun itself, in whose spheres it exists in an incandescent state. It is also included in the cosmic dust of space, from which it falls in meteorites upon the surface of the earth. All bodies of water hold it in solution, from the babbling brook to the wide expanse of the oceans. Spring water is especially apt to contain it, percolating as it does through ferruginous strata and dissolving the oxide in its passage or holding it as a carbonate in all proportions, from slight traces to an amount sufficient to deposit a red stain. Such founts are known as chalybeate springs, the waters of which have been utilized from time immemorial in the treatment of disease internally and externally. Iron is also a constituent of the vegetable kingdom; all plants and trees absorb it from the soil and elaborate it into their tissues, where it is permanently stored. In the physiological requirements of plant life it is so necessary an element that wheat, oats or barley grown upon soil from which iron has been extracted is feeble, pale in color and may be said to

be anæmic in the same sense that is meant in human beings. Animals of all kinds contain iron as an ingredient of their bodies, especially in the red corpuscles of the blood, and obtain it from the vegetables they eat and the water they drink, all excess beyond the physiological needs of the body being eliminated. Industrially iron has not the same antiquity as other metals for the reason, no doubt, that it is only procurable by reduction from the recognized ore by a process developed by time and intelligent effort. Archæology has demonstrated that an indefinite age of stone and another of bronze preceded the knowledge and use of iron. Acquaintance with this metal, however, is heavy with the dust of remote centuries. Thus Tubal Cain is mentioned in Genesis as "the instructor of every artificer in brass (bronze) or iron," and Grecian mythology represents Vulcan as the deity presiding over the art of metallurgy, whose forges in the Isle of Lesbos were heated by volcanic fires and served by the Cyclops. Monuments four thousand years old in the ancient city of Memphis in Egypt depict blue swords in the hands of warriors, in distinction to those of bronze or copper, which were always colored red. Another monument in Egypt erected 2000 years B. C. presents the outlines of a man before a furnace using a bladder-like bellows to feed the blast in the same manner and with the same primitive furnace for the reduction of the metal, such as may be seen among some aboriginal tribes of India, Africa and Borneo, at the present day, no doubt a survival of the method employed in primitive times. At the same time the presence of anciently worked mines in the Libyan desert west of the Nile and the abundance of iron ore in Ethiopia, with whom Egypt always maintained commercial relations, plainly indicates that iron was a well-known commodity in the land of Khem. Statues of iron have survived in the time-honored city of Thebes, and fragments of this metal have been found in various buildings in Memphis and in the great pyramid of Cheops. The Assyrians were also acquainted with iron, for numerous articles of war, ornament and domestic use have been unearthed from the mounds of Nimrud. "The land of the Chaldeans" has also yielded ornaments of iron to the researches of the archæologist. In Egypt the social status of iron varied exceedingly in public estimation, although these differing opinions may not have existed at the same time but were separated by a long intervening period. Thus iron was considered an evil substance and

became known as "the bones of Typhon," the malignant deity and slayer of the god Osiris. On the other hand it received the name of Ba-en-pet, or the celestial metal, on account of its falling upon the earth as a meteorite. In all these countries, however, no attempt, so far as we are aware, was made to employ iron for any other purpose than articles of war, personal adornment and creations of art. "The age of iron" had not yet dawned. Nevertheless it had acquired reputation in a field far removed from the industrial, viz: that of therapeutics. Amidst the half fabulous, half real legends, in which so large a part of ancient medicine is wrapped, it is related that Milampus was consulted by Prince Iphicles for the cure of his impotence. Two bulls were slaughtered and exposed for beasts and birds of prey. Among those who came to the feast was the vulture, who, when questioned in turn, declared that the patient when a boy had thoughtlessly struck a knife into a sacred chestnut tree, the natural growth of the wood having finally enclosed the weapon, and that his ailment was in punishment for his impiety. The knife was now to be searched for, extracted from the tree and the rust carefully and thoroughly scraped from the blade. The rust, it was directed, should then be dissolved in wine and taken in draughts at specified intervals. These instructions, it was stated, were followed literally by the princely patient and the curative result was all that could be desired. The drug in this instance was an acetate of iron and it is as efficacious in this ailment to-day, when indicated, as it was in those far off times.

Another tradition recites how a noted Greek, failing in health until his life seems endangered, consults the priests of the great temple. By them he is directed to enter the tomb of a noted warrior at midnight, and after making propitiatory offerings to calm any resentment the ghost might feel at this intrusion, take the mighty sword from his side, scrape off the rust and dissolve it in a vessel of wine. The "wine of iron" thus obtained is said to have restored the patient to his accustomed health. Other early narratives similar in character, when divested of their mythic clothing, join in testifying to the value of iron in the cure of disease in distant times.

Dioscorides, Celsus and Æteus referred to its internal employment in the treatment of acute enlargement of the spleen. Pliny the elder vouched for the beneficial effects of iron dissolved in vinegar in erysipelas and condylomata

and for its usefulness in the cure of enlargement of the spleen, and further says: "Iron cures what iron causes—hemorrhage." Another of the multiple glimpses of homœopathy. The scales falling from the heated forgings to the base of the blacksmith's anvil (oxide of iron) when allowed to soak in water for some time, were found to communicate a medicinal property to this fluid; and this knowledge extends back into the middle ages. The water in which hot iron was quenched in the smithies in more recent time, was considered efficacious in the home treatment of gonorrhœa by the workmen. The Arabian school of medicine, part alchemist, part Galenist, contributed further to the therapeutic use of iron. Rhazes, especially, mentions it as possessing an invigorating influence on an enfeebled state of the sexual system, and writes that an overdose of iron filings is certain to cause abdominal pain, headache, dryness of the mouth, etc. Their contemporaries, the alchemists, by their methods of "torturing" metals, discovered that iron was capable of forming numerous salts, some of which were afterward used in medicine in place of the actual metal. In modern and recent time the number of these has multiplied so greatly as to forbid their enumeration at present.

The local use of iron, as persulphate or perchloride, has had a very extended use in the control of hemorrhage, internal and traumatic. At one time iron was injected into the tissues surrounding aneunisms, but this was discontinued from its ill success arising from the fact that abscess and suppuration were generally induced by its presence.

Iron has always been considered as the symbol of physical strength, and the expression "strong as iron" is of everyday use. The same idea has been imbedded in its therapeutics from the earliest days, and no doubt led to its employment at a time when its inherent properties were unknown. The faculty it seemed to possess of imparting its own might to an enfeebled human body was a strong argument in the minds of those philosophers ever alert to discover a resemblance between the occult and the natural. This image has always remained, notwithstanding various theories of its medicinal effect, and it still is considered as the tonic *par excellence*, the very word embalming the idea. Under this term it has been as much abused as quinine and opium have been as antiperiodic and narcotic. When the discovery was made that most of the iron in the animal body was contained in the

red corpuscles of the blood, it afforded the so called physiological school an opportunity to explain that as there was a lack of iron in the corpuscles during the progress of anæmia, its administration to the patient was therefore to be considered as supplying a needed element to remedy that defect. Hence, it was boldly proclaimed that iron was a food, and that the favorable results obtained from its use often justified the theory. This purely physical doctrine is still held by many at the present day.

Later physiological investigation, however, has proved that iron loses its identity through its union in the corpuscles with a complex vital product known as hemaglobin.

Besides it has been shown by investigators that the red corpuscles during the progress of anæmia are *not* deficient in hæmaglobin, for it is an ascertained fact that the same quantity of this substance is embraced within their stroma in this disease that is present in health. The defect, therefore, must be sought not in the red corpuscle itself, but in the ratio these bear to the number of white corpuscles, and as a matter of fact the former are exceedingly diminished. This disproportion is so well known, and so constant a feature in anæmia and chlorosis that when ascertained, the diagnosis is established. It is also observed that the quantity of albumen in the blood is greatly below the normal.

In the foregoing description of alterations in the vital fluid the writer includes the influence of iron as well as the features of the natural disease, anæmia. The institution of the artificial disease in some of the provers of iron in our school was preceded and terminated by a physical examination of the blood. The normal character of the blood was ascertained immediately previous to the experiments, and at the conclusion of the latter the blood was again examined. It was then found to bear a striking resemblance to that present in anæmia, even to the delayed formation of the coagulum.

The writer entertains little doubt that more extended investigation will reveal the fact that in anæmia the serum also is in a pathological condition and this alteration proved to be identical, both in the natural and in the ferric disease.

The globulicidal effect of alien serum, now amply attested, shows the possibilities that may lurk in altered serum and may furnish a clew to corpuscular dissolution in malignant disease, as well as in the milder forms of

simple anæmia and chlorosis, and it may also explain that variety known as progressive pernicious anæmia. Considered in this light it is apparent that anæmia is not due to a mechanical lack of iron, a single physiological element, nor is it curable by the physical replacement of this substance. Instead, we find it to be a complex disease, and that blood glandular organs and sexual anomalies each contribute to its etiology. That this intricate morbid state is also caused by ferrum, is shown by the parallel record of their symptoms and physical signs, and this scientific fact explains the homœopathic action of ferrum in curing the entire disorder, its *tout ensemble*, instead of addressing itself to a single ultimate feature.

Anæmia occurs more frequently than is suspected, and the following instance will serve as an illustration.

Case. A plump woman, twenty-eight years of age, was subject to vertigo and migraine at short intervals. Digestion, appetite, menstruation, apparent strength and sleep were unaffected. The thoracic organs showed no organic disease nor was there any inconvenience felt from moving about. Her ruddy complexion and general appearance indicated good health, but her sufferings, as above stated steadily increased in spite of all medication. The pallor of the buccal mucous membrane, especially the tongue and hard palate, led her physician to suspect the presence of anæmia, despite her apparent good health and remarkable appetite, and ferrum was therefore administered (attenuation not stated). Improvement at once took place and continued until she was relieved of all vertigo and cephalic pain. The apparent high color of the face in this patient was an indication for ferrum, as flushing of the face is one of the constitutional effects caused by this drug—a pseudo plethora.

Hæmorrhages from all parts of the body have frequently found a curative agent in ferrum; epistaxis, hæmoptysis, hematemesis, menorrhagia, hæmorrhoidal flow, etc., and in all such instances the blood will be found to be dark in color and passive in character. The menses are either dark and clotted or pale, thin and watery, and the menses are not infrequently irregular or suppressed. The climacteric period with its attendant profuse hæmorrhages and multiform symptomatology, among which sudden flushing is a prominent feature, would seem to suggest its use at this period. This pseudo-anæmia characteristic of ferrum in which the face especially becomes darkly flushed from

time to time is strongly indicative of this remedy: anæmics who have persistent paleness of the face are therefore not subjects for the use of the agent.

The latter often possess a tubercular tendency which is precipitated into hopeless and rapid phthisis by the use of iron, a fact freely admitted by the authorities of the opposite school. Neuralgias temporal, facial, gastric, intestinal, deltoid, intercostal, lumbar, etc., when occurring in anæmics have been relieved by ferrum again and again. The diarrhœa of ferrum is chronic in character and the stools contain undigested food; it is generally painless and attended with great exhaustion. It may also become very free and watery and when associated with vomiting has been considered choleraic.

This is a mistaken view for the chronic character of all ferric disorders, is unlike the acute form which cholera assumes.

Constipation is another functional disorder that yields to ferrum. The dark or black stools present in the anæmic under the influence of iron are due to the elimination of the black sulphide of that metal. The asthma relieved by ferrum is no doubt an aggravation of the shortness of breath present in all cases of anæmia. Pneumonia has been reported to have been cured with ferrum, but as the cases related were in persons over seventy years of age, it is more likely that they were of broncho rather than lobar origin; sudden surging of blood to the chest is experienced in thoracic diseases cured by iron.

Prolapse of the rectum has been remedied by this substance in numerous instances, and better success is claimed for it than follows the use of the more classic ones usually recommended. Incontinence of urine occurring only during the day, and in children at night also, is checked by the use of this agent. As goitre has developed under the long continued use of chalybeate water, and existing ones were aggravated by it, iron must sometimes be of value in the treatment of this disease.

One effect of iron is to cause a variety of dyspepsia, in which there is an unnatural craving for food, or an entire loss of appetite, vomiting after eating, pain, sense of heat and uneasiness in the stomach, all of which may be associated with the chlorotic state and various local disorders. In chronic intermittent fever it has benefited cases of long standing in which there was sustained a combination of

malaria and quinine. Such patients present a long array of ferric symptoms.

Œdema and dropsy are symptoms of the hæmic and other nutritive disorders and are frequently found associated with them, disappearing on the removal of the latter by the homœopathically applied ferrum; they are part of the clinical picture, and are not to be treated *per se*. Palpitation of the heart, sometimes feeble, sometimes tumultuous, is also amenable to iron. The sexual organs are implicated both in the male and female and become the seat of blenorrhœas as well as functional disorders, the most notable of these being impaired power, and even impotence in the former and sterility in the latter.

The writer does not intend to convey the impression that iron is a specific in anæmia or chlorosis; on the contrary, it is known to exert no control over the pernicious form, and is of little or trancient benefit in cases to which it is not homœopathically adapted.

At one time it was sufficient to say puerperal fever, now we speak of puerperal fevers; in like manner we should consider anæmias instead of anæmia. These varieties are not simulated by iron alone, for other drugs such as arsenic, cinchona, etc., are also capable of producing morbid states analogous to them.

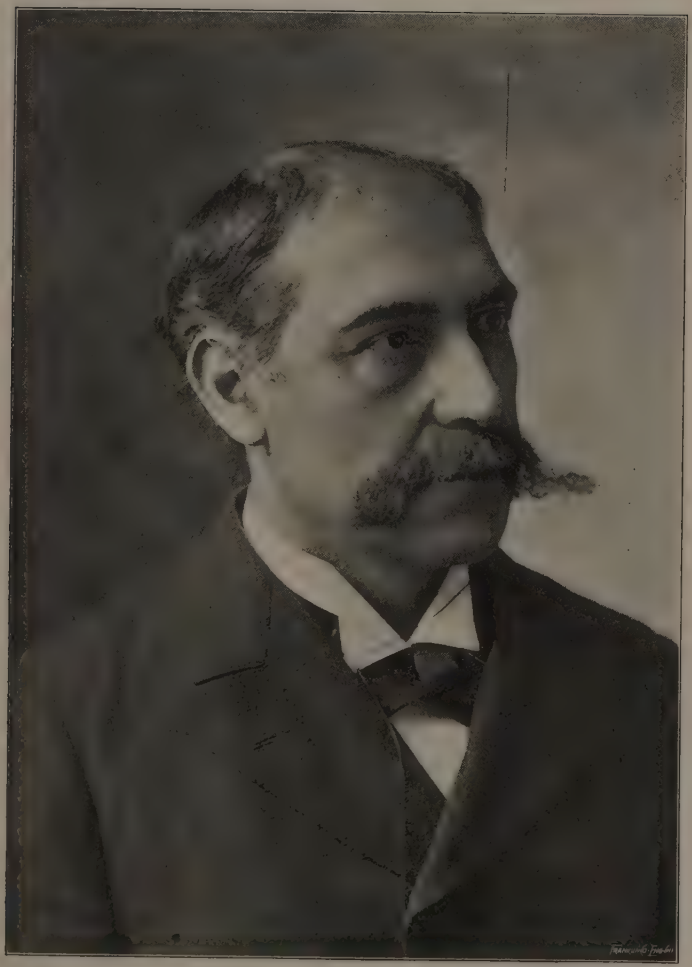
In prescribing ferrum it should be remembered that this remedy is characterized not only by the ashy pallor of the face but by the fact that sudden flushings take place, becoming very red for a time, usually taking place under the stimulus of pain, aggravation of ailments or sudden emotion. In addition it is perceived that various sufferings are relieved by gentle motion or when walking about slowly after having been driven from bed or chair by the unbearable nature of the malady.

Further provings with iron may add not only to our knowledge of its influence upon the body, but also serve to throw more light on the pathology of the disease whose ultimate changes it so closely imitates.

Editorial.

How to abate the college nuisance.—If "censure is the tax a man pays the public for being eminent," the abuses of a great city place an enormous tariff upon its educational institutions. Including men, women and children, Chicago has more than two thousand physicians, mostly professors! Some of its so-called medical colleges are about as noisy and disreputable as were the foreign booths in the Midway Plaisance. And, as the over-multiplication of weak and feeble churches puts a premium on mediocre preaching, and damages the moral standing and welfare of communities; so the wicked propensity to start a college and to be at the head, or the tail, of a new and needless school has seriously compromised the whole business of getting a medical education. Certain sleepy old towns that might be named have no such trouble, and we are glad of it; but here in the stir and whirl of the biggest city in America the abuse has grown to such an alarming extent that the various medical societies are finally coming to the rescue of decency and the proprieties.

At its last meeting held in Chicago, May 11-13, the Illinois Homœopathic Medical Association, with about 300 members present, listened to the address of its President, Dr. J. B. Dunham, of Wenona, on the "Past, Present and Future of Homœopathy." The author urged some very practical considerations upon medical education, our periodical literature, and other matters that are vital to the interests of the profession, all of which came with a good grace and the greater force because he has escaped a professorship, is independent in all respects, and could therefore speak plainly and sincerely. The address was referred to a competent committee, and the outcome was a set of wholesome, loyal resolutions from which we select the following, which everybody will be glad to know was unanimously adopted:



B. S. ARNULPHY, M. D., PROF. OF THEORY AND PRACTICE OF MEDICINE AND CHIEF OF THE THORACIC CLINIC IN THE HAHNEMANN MEDICAL COLLEGE AND HOSPITAL OF CHICAGO.

Resolved, That we endorse the views of the President in regard to medical education and medical colleges; that we deplore with him the unfortunate multiplication of medical colleges, and agree with him that *the remedy lies with the members of the profession in this State and in other States who should refuse to support improperly equipped institutions, and such as have no efficient hospital under their direct control and so situated as to be easily accessible to students.*

The abuse referred to is not confined to our own school of practice, but the remedy is the same for the miserable epidemic wherever it exists. If every decent, earnest physician in Illinois and the adjoining States will refuse to send his students to these "snide" colleges, the nasty bacillus that has worked so much mischief will very soon be frozen out.

In consideration of what Illinois did some years ago by way of elevating the standard of professional requirement all around the horizon, it is fitting and appropriate that her medical societies should take the initiative in this disagreeable duty. If other State organizations will once more follow her examaple, the National bodies in the different schools of practice will not always be so decorously stupid and indifferent to the interests of a sound medical education as they have been and are at the present writing. It is quite possible that a few guns of this sort might arouse and encourage the Intercollegiate Committee of the American Institute to put a proper measure of emphasis, activity and fire into this very necessary business. At least it could so arrange as to withhold its endorsement from these mushroom concerns, and so keep the enemy from saluting us with our own cannon.

Hospital Notes.

THE CHILDREN'S CLINIC.

SERVICE OF PROF. JOSEPH P. COBB.

RECURRENT CHOREA WITH LARYNGO-TRACHEAL CATARRH. —*Case 1,493.* Maggie Kerney, æt. six years. Nothing of special value is found in the family history. She has been subject to catarrhal colds and is at present suffering from a sub-acute laryngo-tracheal catarrh.

Her mother reports that last year she had a severe attack of chorea which lasted several months. She does not remember that it was preceeded or caused by any kind of fright.

This present attack has developed gradually during the last two or three weeks; both hands and arms are involved as well as the legs; these movements do not entirely disappear during her sleep; her sleep is restless and broken. She cannot walk steadily; there are frequent fine twitchings of the facial muscles. She is irritable and peevish and cries at every little thing. The condition of the bowels and urine is normal. Her temperature to-day is 101 F., pulse is irregular and numbers 116 per minute; this rise in temperature and pulse is in part due to a recent aggravation of her catarrhal inflammation.

She was given pulsatilla for two weeks with small results as far as the choreic disturbances are concerned but with manifest improvement in her general health. This was followed by gelsemium for five weeks with steady improvement which terminated in a complete cessation of all choreic symptoms at the end of the five weeks. The laryngo-tracheal inflammation not having been entirely disposed of she was put upon hepar sulph. 6x.

CHOREA.—January 15, 1897. *Case* —— Emma Rush, æt. ten years. Family history reveals the fact that the mother died in the insane asylum when this child was one year old; nothing of value is found concerning her father. She has three brothers, one of whom died in infancy; the other two are well.

This child is said to have been born at seven months; she has had scarlatina, measles and mumps three times.

A few weeks ago she was frightened (cause trivial) and since then she has been unable to keep still, both hands and the left foot keep moving all the time. She cannot walk steadily and it tires her easily to walk at all.

She complains a good deal of a left-sided headache; she cries easily, is frightened at trivial things and cannot bear any noise. Her appetite is variable. There are no urinary or intestinal symptoms. She sleeps well and during her sleep the twitchings all cease. ℞ Ignatia 6x fou times daily.

This patient continued to improve on this remedy in spite of the fact that she brings a report from her physician that she has had another attack of parotitis. She was dismissed March 19 cured. Her prescription was not changed.

CHOREA.—*Case 1,543.* Ida Boudria, æt. ten years, appeared at our clinic March 12 suffering with a severe type of chorea, and was immediately placed in the children's ward of Hahnemann Hospital, where she still remains.

The family history reveals the following facts: Her father suffered with suppuration of the cervical lymphatic glands during his early married life; there has been no recurrence of the trouble since Ida's birth. His family history otherwise good except for the fact that there are good grounds for the suspicion of syphilis not long previous to his marriage.

Ida's mother has had five children, of whom four are living; one died of spinal meningitis, at five months of age; another was operated upon in our surgical clinic for tubercular necrosis of the tibia; he is at present suffering from enlarged submaxillary and cervical glands (probably also tubercular) and some glandular enlargement around the maleoli of the same leg that had the tibial necrosis. The other three children are reported as well.

The mother has had three miscarriages, two before the birth of Ida and one after. The first miscarriage occurred at the sixth month of pregnancy, which was also her first, while she herself was suffering from chorea. She was at that time twenty-one years of age, and the chorea began soon after the first month of pregnancy; she also reports that she suffered with chorea at the age of sixteen. Her

second pregnancy terminated with a still-birth at eight months, cause said to be an "excess of amniotic fluid;" with Ida she went to term. Her fourth pregnancy terminated in a premature delivery at seven months from no assignable cause.

Ida has had none of the children's diseases, and is said to have been well until about four weeks ago. Since then she has been in almost constant motion. The muscles of the head, arms, trunk and legs are all involved. The muscles of phonation are involved to such an extent that she will not even try to talk; she cannot walk alone, and is unable to do anything for herself. She is very much emaciated, though her appetite is good; her bowels are constipated; her sleep is restless; she has a dry, hacking cough; her temperature is normal; her pulse rapid and excitable; she suffers a great deal with frontal headache.

Two years ago she suffered with an abscess involving one of the lymphatic glands. Her treatment in the hospital consisted of absolute rest in bed for four weeks with a light but nourishing diet. She was given nux. vom four times daily and silicia morning and night. At present, five weeks from her entrance into the hospital, she can talk well, is up and playing around the ward, shows no choreic movements and has gained materially in flesh.

These cases represent very well some of the different types of chorea which present themselves to our observation. I am very much in accord with the line of thought which associates chorea and epilepsy as kindred diseases, depending not upon trivial peripheral irritations but primarily upon some, as yet unknown, change in central nerve tissue; the fright or other peripheral irritation simply serving as an excitant. The frequency with which we find chorea associated with a tubercular, rhachitic or syphilitic history would suggest imperfect nerve tissue depending upon malnutrition.

The association with chorea, epilepsy or some other form of nervous disease in preceding generations shows the possibility of the inheritance of nervous stigmata and their inter-relationship. The tendency which the disease

shows toward recurrence and its partiality for certain periods and conditions of life, viz., puberty, pregnancy and the menopause, indicate something deeper than a functional disturbance.

The point that I wish to impress is that a proper nourishment and education of nerve centres is equally as important as the avoidance of exciting causes.

THE CLINIC ON THORACIC DISEASES.

SERVICE OF PROF. ARNULPHY.

COMPLEX ORGANIC LESION OF THE HEART.—*Case 19,838.* Margaret S., æt. fourteen years, complains of shortness of breath upon exertion. She was never able to attend school. Five years ago she had an attack of subacute inflammatory rheumatism in her right knee, lasting a few weeks. Her father is troubled with rheumatic pains. The sleep is pretty good.

Examination. The heart presents an enormous enlargement, undoubtedly due to a mixture of hypertrophy and dilatation. The apex beat is found in the seventh interspace, fully two inches to the left of the mammillary line. In fact, the impact of the heart against the chest wall is visible over a very large area. The cervical region shows a marked carotid throb. Upon palpation the hand detects a double thrill or fremitus; one systolic near the apex, one diastolic over the sternum.

Upon auscultation, four distinct murmurs can readily be made out; one clearly systolic, propagated toward the axilla, denoting insufficiency of the mitral valve; one presystolic, denoting the stenosis of the same valve; one systolic, propagated into the carotids with its maximum at the base of the heart, denoting aortic stenosis; finally, a diastolic one propagated downward along the sternum, denoting aortic regurgitation. Prescription, naja 6x.

Aside from the unusual complexity of the lesion, this case is interesting because it shows how even a slight and localized rheumatic manifestation may, in the case of a child, become the starting point of serious organic trouble. It shows how vulnerable a point the endocardium is during child life, and how careful we must be not to slight any arthritic symptoms in children. All too often parents,

and doctors, too, are apt to mistake real rheumatic manifestations for so-called "growing pains."

This child bears her trouble remarkably well, in spite of the enormous strain on the heart, but in all probability the rupture of compensation is not far off. Observe how her growth has been stunted by the cardiac affection. Although she is fourteen, she hardly looks as if she were ten years old.

CHRONIC BRONCHITIS; INCIPIENT TUBERCULOSIS; CARDIAC DILATATION—*Case 19,827.* William S., æt. fifty-nine, a bricklayer. (Referred from the Nose and Throat Clinic). The family history is good. This man says that at the age of forty, he was quite robust. His first illness was a severe attack of bronchitis some twenty years ago. Shortly afterward he had intermittent fever. Nine years ago he experienced a second attack of bronchitis from which he never recovered entirely, a chronic cough having been left behind. His cough is worse in the morning, on first getting up. The expectoration is abundant, bluish white. Within the last three or four years, upon the least exertion, he gradually becomes dizzy, and if he attempts to stoop, falls upon his hands and knees. He has been obliged to stop all work on account of this latter condition. Exertion also brings about palpitation of the heart and loss of breath. The circulation is poor. His lips, limbs and hands assume a cyanotic tinge when exposed to the slightest degree of cold. The appetite is weak, the bowels costive. He has suffered from rheumatic pains for the last two years.

Examination. The chest is flattened; marked depression of the supra- and infra-clavicular regions. The right lung shows a roughening of both the inspiratory and expiratory murmur; this, however, is much more pronounced over the apex, where minute crackling rales are also detected. The left lung shows no abnormal sign, save a somewhat puerile character of the breathing. Turning to the heart, we find a marked increase of the superficial area of dullness; the first sound is weak, valvular.

We have here a case of chronic bronchitis in the course of which the heart has become dilated. It is the right ventricle of course that bears the brunt of the trouble, fortunately for our subject there is but little emphysema present, otherwise the situation would be much more seri-

ous. There is an undoubted focus of tuberculosis at the right apex, and though the condition does not translate itself into symptoms yet, it will soon acquire undesirable prominence. Neither chronic bronchitis nor cardiac dilatation are necessary, or even usual etiological factors of pulmonary tuberculosis; it is pretty safe to conclude that what induced the advent of the infection was the general falling off of the vital resistance of the patient.

Treatment. Tuberculin 30x will be given for a time, then silicea 30x; and in the meanwhile arseniate of strychnia 3x before meals.

INCIPIENT TUBERCULOSIS.—*Case 19,813.* Frank H., æt. thirty-three, a harness maker sits the whole day long at a sewing machine. Has never been seriously ill. Caught a severe bronchitis last winter and has coughed ever since. There has been a little blood occasionally in the sputum. Complains of soreness about the chest walls, probably the result of exertion from coughing. The family history is good. Both parents are living and well.

Examination. The general appearance of the subject is not unfavorable. There is no apparent loss of flesh. The chest is well formed, save for some slight infra-clavicular depression, and on both sides, percussion yields no indication of disease. Upon auscultation we find the inspiratory murmur tinged with decided roughness over the right summit, and followed by slightly prolonged expiration. The left summit is about normal.

We have here a characteristic case of tuberculosis of the apex in its incipient stage. The infection is probably confined as yet to the lining epithelium of the alveolar passages of the affected region, and to the immediately subjacent structures. At this stage tuberculinum 30x displays remarkable curative power, and I have seen it stop the progress of the disease in a large proportion of such cases. We will therefore prescribe it for this patient, one tablet twice a day.

I attach a great diagnostic importance to the roughening of the inspiratory murmur, in the detection of early tuberculosis of the lung. In fact it precedes sometimes

for many months the development of prolonged expiration, and has therefore a much greater clinical value.

Clinical Chips.—The absence of knee-reflex in certain cases of diabetes is due to alterations in the posterior columns of the spinal cord.——The fluid extract of hydrastis is the newest remedy proposed for subacute, non-tuberculous bronchitis.——The microbe of the plague, now so prevalent in India, will live three days in sterilized water, but one day only in ordinary water.——From recent reports it seems that extra-uterine pregnancy is almost as frequent among the lower animals as it is among women.——The biliary pigment may pass into the blood and cause a jaundiced hue of the palms of the hands, as well as of the skin in other parts of the body, without any trace of it appearing in the urine.——The presence of lactic acid in the gastric juice is not a certain sign of cancer of the stomach, for it has been found in a case of cancer of the gall bladder in which the stomach was not involved.——According to Pliny the ancients learned to use chelidonium as a collyrium from the swallows, who cured the eyes of their little ones with it.——Convulsions in children may sometimes be cured by a removal of the tonsils.——To bring a patient out of a drunken fit put a tablespoonful of Spiritus Mindereri in half a glass of water, have him drink half of it, and after waiting ten minutes, the other half, and he will be sobered up in a very short time.——The anti-diphtheritic serum has been found useful in aborting the whooping-cough.

Clinical Reviews.

All books for review, magazines, exchanges, correspondence and articles designed for publication in this journal should henceforth be sent to Dr. R. Ludlam, Editor, 1823 Michigan Avenue, Chicago.

DISEASES OF THE EAR, NOSE AND THROAT AND THEIR ACCESSORY CAVITIES. A condensed text-book. By SETH SCOTT BISHOP, M. D., LL.D., Professor in the Chicago Post-Graduate Medical School and Hospital; Surgeon to the Illinois Charitable Eye and Ear Institute, etc., etc. Illustrated with 100 colored lithographs and 168 additional illustrations. The F. A. Davis Co., Publishers, Philadelphia; 9 Lakeside Building, Chicago.

Chapter I. opens with these lines: "The following statistical tables represent the records of 21,000 cases treated during the past seventeen years at the Illinois Charitable Eye and Ear Infirmary."

The figures are startling, and are of interest in so far as they put the reader in possession of the fact that the author has had an extremely extensive experience in the line of work to which the first part of the book is devoted. The statistics are, if anything, drier than they usually are, and seem to bring to light nothing new or instructive.

The first one-third of the book is given up to about all that is practical in the description and treatment of ear diseases, and we felicitate the author upon the uncompromising honesty with which he has treated some of the theories that are so old as to command respect simply because of their antiquity, and others which are in vogue only because of their newness. Of the latter class staphedectomy for sclerosis of the middle ear has been much practiced for three or four years past. The uselessness of the procedure is plainly set forth in chapter X. In the preceding chapter a well deserved "coup" is given to "the use of the phonograph, vibrometer and other expensive instruments that produce sound waves of speech or musical vibrations that are conveyed to the drum head by rubber tubes inserted in the external auditory canal, and which have been vaunted by ill-advised laymen."

The chapters whose excellence stand out so markedly as to dwarf the rest of the work upon ear diseases are those upon the involvement of the mastoid. Dr. Bishop's discussion of this subject is exhaustive, quite up to date, and will be read with interest and profit by ear surgeons.

In the second part of the work, that devoted to diseases of the nose, we are pleased to find that the author has discovered still another new name for what is most commonly called hay fever, that is if it is not designated by one of a dozen other terms used to indicate the different phases of the affection. Nervous catarrh, he calls it, and argues very plausibly that it occurs only in persons having an excess of uric acid. Accordingly, exciting causes removed, predisposing causes treated, a speedy cure is made. If the author's premises are sound, we stand ready to congratulate him upon the early acquisition of an immense fortune. He will be a celebrated man, indeed, if he has discovered an unfailing cure for "nervous catarrh." In any event the chapters are very interesting and the methods advocated are well worth trying.

In the portion devoted to the throat the chapters upon diphtheria command our attention. The "serum therapy" is treated at length, and reports from the best medical journals and from physicians in high standing the world over are quoted. The following conclusions are given at the end of the chapter: "A critical review of the great mass of evidence accumulated, both favorable and unfavorable, to the blood serum therapy, a small fraction of which is here presented, forces the conclusion that the preponderance of evidence justifies the verdict that diphtheria antitoxin, administered early and in sufficient doses, the first or second or not later than the third day of the disease, has the power to prevent a fatal issue. Given later it may modify the intensity of the toxæmia, if a multiple of the ordinary dose is given. * * * While the serum is a powerful remedy and may be capable of doing harm, the disease itself is so virulent that in view of the great weight of testimony and statistics in its favor the physician should not fail to avail himself of this addition to thorough local and general treatment.

In conclusion, this work upon the "ear, nose and throat," for the student and for the general practitioner, for whom it was especially written, is as good as any, if not the best, in the field to-day. It is practical, some of it new, and while it does not and is not intended to fill the place of exhaustive treatises like Politzer, Gruber, Schnitzler and others, written for the specialist, I can say that the student or general practitioner cannot obtain a work which will more exactly fill his needs. I heartily congratulate the author upon his production. C. J. Swan.

Miscellaneous Items.

Our Alumni everywhere, for they are everywhere now, will please take notice that during the meeting of the American Institute in Buffalo, June 23–30, the headquarters of the Hahnemann Medical College and Hospital of Chicago, will be at the Iroquois hotel, where they will be expected, and indeed are urgently invited to report themselves early and often. Come along and let us see you again.——The annual exercises of the Hahnemann Hospital Training School for Nurses was held in the college amphitheatre on the evening of June 3, a large and delighted audience being present. The following programme was in charge of Prof. Chislett: Prayer,the Rev. J. Lloyd Jones; solo, Dr. Miller; report of the Training School, Miss Cora Overholt; piano selection, Dr. Geo. McBean; Address to the Graduates, Rev. Jenkins L. Jones; solo, Dr. Miller; awarding of diplomas and badges, President Ludlam; reception. From the very interesting report of the Superintendent of Nurses, Miss Overholt, we select a few items:

During the period of six months there have been received 116 letters for information, rules, etc., and fifty-four formal applications for admission as probation nurse. Nineteen have been received on probation, nine of whom were accepted as pupil nurses. Three hundred and seventy six patients have been regularly cared for, besides those who left as soon as they had recovered from the anæsthetic, or who only came for treatmentor dressing.

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The class of '97 began its course with twelve members, but two were forced by failing health to give up the work. One, Edith M. Campbell, a graduate of the Training School at Peterborough, Canada, joined the class for six months' post-graduate work. At the final examination the average class standing was $89\frac{2}{5}$. The course of instructions planned by the training school committee has been carried out, thus affording the nurses lectures on two evenings of each week. Lectures on massage are now in

progress and cooking lessons will be continued through the summer.

We extend our thanks to the busy men and women physicians who have filled the lecture hours often at inconvenience to themselves; to those who have patiently and thoroughly taught our pupils at the bedside and in the operating room; to the ladies whose personal interest has brightened our work and leisure; and to Mr. Burt, the superintendent of the hospital, for his unfailing sympathy, counsel and efforts for the benefit and welfare of the nurses.

The following is a list of the graduates: Emma V. Schooley, Isabel M. Campbell, Henrietta Freedlander, Margaret E. Faust, Martha Baird, Mary G. Currier, Lillian G. Miller, Cora W. McCormick, Minnie M. Raycroft, Eva C. Triggs, and Edith M. Johnson, post-graduate.

Dr. E. E. Shutterly, of Evanston, Ill., and Miss Betty Miller, of Louisville, Ky., were married June 9.——Dr. Axel H. Christensen, '97, has been appointed resident interne at the Silver Cross Hospital, Joliet, Ill.——Removals: Dr. Arnulphy to Fifty-third Street and Jefferson Avenue, city; Dr. Harriet K. Davis, 6434 Kimbark Avenue, city; Drs. M. E. Holliday, from Janesville to Ft. Atkinson, Wis.; F. S. Carpenter, Berwyn, Ill., to 209 Clifton Avenue, Newark, N. J.; E. E. Gwynn, 407 Centre Street, to 506 Garfield Avenue, city; A. E. Conrad, from Canton, Ill., to Pleasant Plains, Iowa; E. E. Gordon, from Sparta, Ill., to Memphis, Tenn.; D. E. Spoor, from Denver, Colo., to Schenectady, N. Y.; J. E. Shearer, Mayville to Hopkins, Mo.; J. H. Hallock, Newton Falls to Keen Valley, Essex County, N. Y.; and Freda Baker to 2601 North Paulina Street, city.——Dr. H. A. Noyes has recovered his health and returned to Mt. Carroll, Ill.—The various State societies have been more largely attended and more successful than ever before.——